



Section	Well Intent	Bubblynet Contribution	Max Points
<b>A05</b> Enhanced Air Quality	PM2.5: 10 µg/m <sup>3</sup> or lower. <sup>9</sup> PM10: 20 µg/m <sup>3</sup> or lower. <sup>9</sup> & Acetaldehyde: 140 µg/m <sup>3</sup> or lower Acrylonitrile: 5 µg/m <sup>3</sup> or lower Benzene: 3 µg/m <sup>3</sup> or lower Formaldehyde: 9 µg/m <sup>3</sup> or lower Naphthalene: 9 µg/m <sup>3</sup> or lower Toluene: 300 µg/m <sup>3</sup> or lower Nitrogen dioxide: 40 µg/m <sup>3</sup> [21 ppb] Carbon monoxide: 7 mg/m <sup>3</sup> [6 ppm]	Air Purifier eliminates 99.9% of airborne pathogens in under an hour	4
<b>A06</b> Enhanced Ventilation Design	Demand-controlled ventilation (DCV) system regulates the outdoor air ventilation rate to keep CO2 levels less than 750 ppm or 350 ppm above outdoors levels.	Co2 sensor combined to BACnet gateway to control HVAC	2
<b>A08</b> Air Quality Monitoring and Awareness	The project deploys monitors with sensors that measure:  PM2.5 Carbon dioxide Total VOCs  Display screens prominently positioned at a height of 3.6–5.6 ft with at least one display per 5400 ft <sup>2</sup> of regularly occupied space.  Hosted on a website or phone application accessible to occupants. Signs are present indicating where the data may be accessed at a density of at least one sign per 5400 ft <sup>2</sup> of regularly occupied space.	Air quality sensor and touchscreen	2
<b>A13</b> Enhanced Supplied Air	All occupiable spaces with recirculated air are treated with purification/cleaning system(s), either in the HVAC system or as a standalone device	Air purifier	1

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<b>L03</b> Circadian Lighting Design	At least 275 EML	Circadian biological chip with 480 nm peak	3
<b>L04</b> Electric Light Glare Control	Unified glare rating of 16 or lower	With Premium lighting	2
<b>L05</b> Daylighting Design Strategies	Shading is automated to prevent glare	Shading control	2
<b>L06</b> Daylight Simulation	Average sDA300,50% is achieved for > 75% of regularly occupied floor area	With premium lighting	2
<b>L08</b> Electric Light Quality	CRI (Ra) ≥90. CRI (Ra) ≥ 80 with R9 ≥ 50. IES Rf ≥ 78, IES Rg ≥ 100, -1% ≤ IES Rcs,h1 ≤ 15%.  Manage flicker	With premium lighting	3
<b>L09</b> Occupant Lighting Control	All regularly occupied spaces contain lighting zones: One per 5 occupants Lighting systems have at least three lighting levels or scenes that allow for changes in light levels and have the ability to change at least one of the following:  1. Color. 2. Color temperature. 3. Distribution of light by controlling different groups of lights or through preset scenes.  All regular occupants have control over their immediate lighting environment through at least one of the following:  1. Manual controls (e.g. switches or control panels) located in the same space as each lighting zone.  2. Digital interface available on a computer or phone.  3. Lighting for presentation or projection walls are separately controlled.	BubblyNet controls	2



## Thermal comfort

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<b>T03</b> Thermal Zoning	Control over temperature in the space is available one per 5 occupants	BACnet Touchscreen	2
<b>T06</b> Thermal Comfort Monitoring	<p>The project monitors dry-bulb temperature and relative humidity in occupiable spaces in compliance with the requirements outlined in the Continuous Monitoring Protocols of the Performance Verification Guidebook.</p> <p>Real-time environmental measures' display of dry-bulb temperature and relative humidity is made available to occupants through one of the following:</p> <ol style="list-style-type: none"><li>1. Display screens, with at least one screen located in each 5400 ft<sup>2</sup> zone of regularly occupied space.</li><li>2. A website or mobile application, with at least one sign located in each 5400 ft<sup>2</sup> zone of regularly occupied space, indicating where the data may be accessed.</li></ol>	BACnet Gateway+ BACnet touchscreen + temperature and humidity sensor	1



## Sound

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<p><b>S06</b> Minimum Background Noise</p>	<p>A sound masking system is installed in open areas and enclosed rooms designated as quiet zones, circulation zones and in areas where workstations are present.</p> <p>The sound masking system produces a 1/3 octave band adjustable output signal and minimum frequency spectrum of 100 Hz to 5 kHz.</p> <p>The sound masking system is commissioned such that the following sound pressure levels are not exceeded:</p> <p>Open areas designated as quiet zones, circulation zones and areas where workstations are present: 48 dBA.</p> <p>Enclosed rooms labeled as quiet zones: 42 dBA.</p> <p>The sound masking system is verified by a professional sound masking system installer in accordance with ASTM 1573-18 or equivalent standard.</p>	<p>Sound Masking generator + speakers + acoustic panels (1 extra point)</p>	<p>2</p>